

EMBLETONIA PALLIDA.

Yellowish white, with a few black spots on the back: tentacles shortish, approximating: oral lobes indistinct, united into a semicircular veil: branchiæ nearly linear, very pale orange, set in 4 or 5 rows on each side, two papillæ in each row. Length $\frac{1}{10}$ th of an inch.

A specimen of this minute species, discovered by Mr. Price on the shore at Birkenhead, was kindly sent us by that gentleman in the spring of this year. It differs from the other British species in having a double series of papillæ at the sides.

ANTIOPA HYALINA.

Pellucid, yellowish, with brown markings down the middle of the back: branchiæ elliptical, tuberculated, hyaline, with the central vessel fulvous: dorsal tentacles obtuse, obscurely laminated, united by a crest: oral tentacles united by a narrow veil. Length $\frac{3}{10}$ ths of an inch.

We are indebted for our knowledge of this species to Mr. Byerley of Upton, Birkenhead, who dredged it near Hilbro Island at the mouth of the Dee in 1851. In many of its characters it comes very near to *Proctonotus mucroniferus*, but the laminated crest shows it to belong to the genus *Antiopa*.

X.—Notes on the Ornithology of Ceylon, collected during an eight years' residence in the Island. By EDGAR LEOPOLD LAYARD, F.Z.S., C.M.E.S. &c.

[Continued from p. 64.]

219. GALLOPERDIX BICALCARATUS. *Aban-cuccula*, Cing.

This species, known to Europeans under the various denominations of "Spur Fowl," "Double-spurred Partridge," and "Kandy Partridge," is an inhabitant of the central, southern, and south-western provinces. It delights in deep-tangled brakes, and thick masses of canes on the sides of gentle declivities; these it finds abundantly in the localities above cited, while in the northern and eastern provinces the sandy soil and open jungles offer no congenial home to a bird of its shy and retiring habits. Even in localities where it does occur, it is more often heard than seen; for so extreme is its wariness, that it rarely falls before the gun even of the native hunter, who creeps about unclad, and noiselessly as the denizens of the forest. It is trapped by means of nooses and other snares placed in its path, for its flesh is highly valued by the natives. I think it

decidedly superior in flavour to any other game which I tasted in Ceylon ; it ate and looked much like grouse.

It is most active during morning and evening, roaming in small parties amid the open glades, or bare towering trunks of the "Mookalane," but on the least alarm seeking safety in the most impenetrable underwood ; after remaining some time concealed, if nothing occurs to excite their fears, a cock-bird, bolder than the rest, will utter a few low notes, not unlike the plaintive cry of a turkey poulty ; if this is answered from a distance, or the birds are reassured by the total silence, the call is changed to a loud piping whistle, of which the following stave gives the nearest representation I can devise :—



and the birds once more sally out from their concealment. I am convinced that, like the Virginian quail, these birds possess the power of ventriloquism in a great degree. I have often listened to those in my aviary, and could have declared that the calls proceeded from every part of the garden save that in which the performers were located. They do not thrive well in confinement, but exhibit the same wild and suspicious demeanour, always hiding behind their feeding-troughs, or herding in corners. If any object approaches too closely and alarms them, they rise suddenly from the ground with a violent spring, and unless the roof is placed at a considerable altitude, dash their heads against it and fall lifeless to the ground.

They fly with great rapidity, but prefer to take refuge in concealment rather than maintain a lengthened flight. One which escaped from a basket in my house flew up to the roof and through the ventilating holes, but instead of continuing on the wing at the elevation it had attained, it dropped instantly into a small copse, out of which it was hunted with much difficulty, when it darted through an open door into my kitchen and concealed itself behind a box.

The males are very pugilistic, and in their manner of fighting reminded me of the game cock, depressing and elevating the head, imitating each other's actions, &c. &c.

Of its nidification nothing is known.

The wretched figure of a "Rail," in 'Brown's Illustrations,' is, I am certain, meant for a female of this species ; Mr. Strickland agreed with me in thus thinking.

220. *FRANCOLINUS PONTICERIANUS*, Gmel. *Cowdari*, Mal. *Oussa-watua*, Cing.

Not uncommon on sandy soils dotted with jungle, such as extends from Chilaw northward round to Tangalle; in the interior and about Colombo it is not found. In the northern province it is very abundant, and flourishes well on the islands in the Jaffna estuary, on which I have frequently had excellent sport. They frequent the branches of thick trees or bushes, and perch very readily. They breed twice a year, in August and December (at least I have taken fresh eggs in both these months), laying from eight to sixteen eggs. Axis 15 lines, diam. 12 lines. In shape like those of the European bird, but more yellow in colour, in a hollow in the bottom of a bush or tuft of grass, making little or no nest.

221. *PERDICULA ARGOONDAH*, Sykes.

I have only seen one pair of these elegant little partridges; they were caught alive at Cotta, near Colombo. I have an egg which can only belong to this bird, also found in the same locality. Axis 12 lines, diam. 9 lines. It precisely resembles a diminutive partridge egg.

222. *COTURNIX CHINENSIS*, Linn. *Wenella-watua*, Cing.

This small and elegantly coloured Quail is rather common in the grass and paddy fields in the neighbourhood of Galle and Matura; elsewhere I have not met with it, save once in the Pasdoom corle. It flies together in coveys of ten or fourteen, and from its diminutive size and rapid motion is hard to shoot; when once shot at, it is very difficult to flush again, skulking among the tufts of grass, and suffering itself to be caught by the hand. I tried to keep them in confinement, but they appear of untameable nature, and on the least alarm spring upwards with such force as to dash their heads in pieces against the roof of their cage.

223. *TURNIX OCELLATUS*, Scop., var. *TAIGOOR*, Sykes. *Watua*, Cing. *Cādey*, Mal.

Common in the south; the variety which Mr. Blyth designates as *T. Bengalensis* is abundant in the north, to the exclusion of the other. There does not appear to be any difference in the eggs, which are oblong-ovate, of a yellowish green colour, closely mottled with blackish spots, which grow larger towards the obtuse end, in some instances running into each other. Axis 11 lines, diam. 8 lines. The nest, if nest it can be called, is composed of a few bents of grass dropped into a depression in the

ground, often only the footprint of a bullock. I have found the eggs from February to August, and equally fresh.

Dr. Kelaart includes *Coturnix Coromandelica*, Gmel., in his list, *sed non vidi*.

224. *ESACUS RECURVIROSTRIS*, Cuv. *Mosul-Krandi* and *Mosul-Kanati*, Mal.; lit. *Hare-eyed*.

A rarish and wary bird, frequenting the open muddy plains of Mantotte on the western coast, occasionally found about Pt. Pedro, and I saw a specimen or two at Hambantotte. I think it is migratory, appearing in December. I have seen them coming from the seaward in that month. Its eggs, two in number, are deposited on the bare ground in a small hollow; they are of a pale nankeen colour, thickly covered with burnt-umber-coloured blotches, largest and closest at the obtuse end. Axis 2 inches; diam. 1 in. 4 lines.

225. *EDICNEMUS CREPITANS*, Temm.

Much more frequent and generally distributed than the preceding species. It is found also in flocks of fifteen or twenty, whereas the former is a solitary bird, at most only found in pairs.

226. *CURSORIUS COROMANDELICUS*, Gmel.

Found occasionally on the Wally plains during the month of April. Dr. Kelaart includes *Glareola orientalis*, Leach, *sed non vidi*.

227. *SARCIOPHORUS BILOBUS*, Gmel. *Kirella*, Cing. *Alcatty*, Mal. *Verklakker*, Dutch. *Teteue*, Port.

This and the succeeding species are abundant all over the island in the neighbourhood of water, and with their loud untiring cries, which have been likened to the words, "Did he do it?" and "It's a pity to do it," are the plagues of the sportsman.

The tank-shooter in particular, while stealing along in the silence of the night to some secluded pool, where he knows he shall probably find an elk or a bear, is startled by the shrill cry of this ever-vigilant bird, as it springs from almost under his feet and makes the night air ring again, while far and near the cry is re-echoed, till every wild animal within hearing is on the alert, roused by its well-known warning voice.

The nest is merely a hollow stamped in the earth by the old birds, and the eggs, from three to five in number, weigh 3 iiiss. Axis 1 in. 6 lines; diam. 1 in. 3 lines. Their colour is a rich nankeen, plentifully spotted with rather large blotches, some of which are dark brown, others gray, of a deeper or paler shade;

these markings are thickest at the obtuse end. The shape is similar to those of the lapwing.

228. *LOBIVANELLUS GOENSIS*, Gmel. *Kibulla*, Cing. *Alcaty*, Mal.

In habits this species so nearly resembles the last, that nothing more need be said upon it. Its eggs are rather larger, having an axis of 1 inch 9 lines, and a diam. of 14 lines; the markings are similar in colour, but smaller and more thickly and generally spread.

229. *CHARADRIUS VIRGINICUS*, Bech. *Rana-watua*, Cing. *Cotan*, Mal. *Sneppy*, Port. *Chnipe*, Dutch. The Dutch and Portuguese names are applied indiscriminately to all the lesser waders. *Golden Plover* of European sportsmen.

A bird of passage, appearing in September with the rains; it frequents ploughed lands in search of worms and grubs of all kinds, and is not at all rare, particularly in the northern province.

230. *HIATICULA LESCHENAULTII*, Less.

Syn. *Charadrius rufinellus*, Blyth, Ann. & Mag. Nat. Hist. 1833.

231. *HIATICULA CANTIANA*, Lath.

and

232. *HIATICULA PHILIPPINA*, Scop. *Ola-watua*, Cing. This name is common to most of the waders.

The mud plains of Mantotte and Bangalle on the western coast, the shores and inlets of the Jaffna estuary, extending as far as Mulletivoë on the eastern coast, and the salt pans of Hambantotte on the south of the island, afford vast feeding-places for myriads of the lesser waders, who fly about in flocks of tens, or tens of hundreds, over the creeks of brackish water which meander through the naked and inhospitable wastes. Nor must the numerous marshy mangrove-covered islands, formed by the silt which accumulates at the mouths of the rivers, be forgotten, nor the reedy margins of the tanks and lakes be overlooked, while enumerating the resorts of the *Charadrinæ*, *Totantinæ*, and *Tringinæ*. Their piping cries mingle equally with the roar of the surf as it thunders over the coral-reef or sandy beach, with the moaning of the wind among the trees which surround the lonely jungle tank, and with the voice of the husbandman as he urges his toil-worn buffaloes through the teeming mud of his paddy-field. To the true lover of nature I know no sounds more pleasing than the wild cries of the sea birds which blend harmoniously with the rougher voices of her elements; to myself they impart feel-

ings of the most intense pleasure, feelings of exultation, which make me long to raise my voice and shout in concert with those of the busy multitudes.

The commonest of the three species above enumerated is perhaps *H. Philippina*; they are all birds of passage, frequenting different parts of the island at different seasons, but I never heard of any of them breeding with us.

233. STREPSILAS INTERPRES, L.

Rare. I procured three specimens at Pt. Pedro in January on the coral-reef, and Mr. Brodie forwarded me one from Putlam which he shot on the Calpentyn lake; I also saw one on the rocks in Colombo harbour in March.

234. HÆMATOPUS OSTRALEGUS, Linn.

Very rare; only one or two specimens seen in the Jaffna estuary in the month of January.

235. ARDEA CINEREA, Linn. *Kallapua-Karawal-koka* and *In-dooroo-koka*, Cing.

Rare: I only procured one specimen, which I killed one morning before daylight while crossing Wally plain. Mr. Gisborne's collector procured one in the island of Valenny near Jaffna.

236. ARDEA PURPUREA, Linn. *Carawal-koka*, Cing.

The "Blue Heron" of European sportsmen is not uncommon. I have shot it at Matura and at Pt. Pedro, and saw it on most of the tanks in the central road. It is rarely seen walking in the flooded fields like the White Herons, but keeps to beds of reeds along the margins of rivers and tanks.

237. ARDEA ASHA, Sykes.

I procured several specimens of this bird from Valenny, one of the islands of the Jaffna estuary, and from a lake near Chilaw, where they bred in company with others of the same genus. I also shot a young bird pure white, except some dusky gray upon the winglet and coverts of the primaries, and at the base of some of the dorsal feathers. Of this bird Mr. Blyth writes—"This is an exceedingly interesting specimen, and goes far to prove by analogy the identity of the white *Herodias Greyi* with *H. gularis*." I shot this specimen on Colombo lake. The eggs of this species are of a pale blue colour, in shape a rounded oval. Axis 1 in. 10 lines, diam. 1 in. 5 lines. The nest is a huge structure

of sticks placed in trees by the water's side. Incubation goes on in May and June in Chilaw lake; eggs said to be from four to six in number.

238. ARDEA ALBA, Linn. *Baddadel koka*, Cing. *Vella-koku*, Mal.; lit. White Heron. *Koku* is the Malabar name for all the Heron family. *Gans*, Dutch. *Garses*, Port.

239. ARDEA INTERMEDIA, Wagler. *Hotta-kallu-koka*, Cing.; lit. Black-billed Heron.

240. ARDEA GARZETTA, Linn. *Sudu-koka*, Cing.; lit. White Heron.

241. ARDEA BUBULCUS, Savig. *Gehri-koka*, Cing.; lit. Cattle-keeper Heron.

These Egrets are common in nearly all parts of the island, except in the hills; at Nuwera Elia Dr. Kelaart has not met with any; further down I saw them sparingly, but the low country is their stronghold. *A. bubulcus* is sure to be found in attendance on grazing cattle, ridding them of their flies, ticks, &c., and the animals seem well to know their benefactors, and stand quietly, while the birds jump up and peck their tormenters from their flanks and belly. All the species frequent open fields. Half-way between Tangalle and Matura is a large lake, which an official attendance on the Supreme Court of Judicature fortunately enabled me to visit. While the court officers halted for the heat of the day, I set off on horseback from the rest-house and galloped to the village, having sent forward my "fidus Achates," Muttu, over-night, with orders to prepare me a boat. This was in waiting when I arrived; a canoe so narrow that I could not sit in it, or rather *on* it with my knees together. To remedy this defect, Muttu had fastened a bottomless chair over it! and had woven some coir rope across the chasm. The canoe, the only one to be had, was about 12 feet long, worm-eaten throughout, and one end gone entirely, its place being supplied with a piece of fresh turf, to keep out the water!! Into this I and Muttu and a steersman got, the villagers pushed us off, and when fairly afloat I found the top of the gunwale about three inches from the water, and that my frail vessel leaked in fifty places. From my elevated position I counted one, two, three, a dozen alligators, and I anxiously inquired of my black, and all but nude crew, if they were of the harmless kind. A shake of the head and the word "*Alliekimboola*" by no means reassured me; it meant they were all man-eaters! I looked at my boat, then at the loathsome reptiles floating around me, then

at my boat again; it would not do—I must give it up—the risk was too great; the least sudden, thoughtless move might upset us. I tried the outrigger with my foot, *that* was firm; the nigger knew his safety lay there; “*crack*” went the collecting gun close to my ear, and down came a specimen of *Nycticorax griseus*, a bird until then new to me; this turned the scale, and I ordered the boat forward; thousands of water-birds rose at the report, and soon the guns were busily employed. It was full breeding season. Herons, spoonbills, ibises, pelicans, &c., &c., swarmed in the air and on the trees, while their nests were so crowded as to touch each other. I could only get a few of those nearest the lake; up to them the men climbed from the boat, not daring to venture into the water, which was alive with alligators, watching for the young birds which fell from the nests; several times they snapped up the birds which I shot before I could get them, though they only fell fifteen or twenty yards away; the branches of the trees were white with droppings, and the water below thick and putrid; the stench was intolerable. It was with difficulty I could distinguish one nest from another, so as to be certain of the parentage of the eggs; but by remaining quiet, I marked a bird to its nest, and then rowed up to it, robbed it, and then lay-to again. The nest seemed to be used year after year, if one may judge from the masses of sticks of different ages of which they were composed; my guide also confirmed this idea, and said the birds were not particular as to the nest, one species occupying it one year, another the next perhaps.

The following are the dimensions of the eggs I obtained, taken at random from what appeared the most *usual* form of each species, though much difference exists in this:—

Ardea alba.—Axis 2 inches 3 lines, diam. 1 inch 8 lines.

A. intermedia.—Axis 1 inch 9 lines, diam. 1 inch 4 lines.

A. garzetta.—Axis 1 inch 10½ lines, diam. 1 inch 5 lines.

A. bubulcus.—Axis 1 inch 10 lines, diam. 1 inch 4 lines.

Unfortunately most of my eggs were hard-set. I was there at the beginning of May*. In shape they are equal at both ends, and very rounded; they are also all of the same pure pale blue colour.

242. ARDEOLA LEUCOPTERA, Bodd. *Kanna koka*, Cing.

Very abundant in all marshy ground. It stands motionless on the low embankments of the paddy-fields, and watches for small fish, crabs, &c. When one comes within range, it darts

* I see by an old note, that I found *A. intermedia* breeding in a marsh at Pt. Pedro at the end of July; eggs being then fresh.

out its neck and seizes it with its bill; while thus engaged, their dark-coloured plumes so entirely cover the white ones, that the bird is almost invisible; on taking to flight, however, these become apparent. In allusion to this, the Tamuls have a proverb that, like this Koku, the deceitful man only occasionally shows himself in his true colours.

It breeds in trees in company with other herons; its eggs are the same in colour, but rounder in shape; axis 1 inch 5 lines, diam. 1 inch 2 lines.

243. ARDETTA CINNAMOMEA, Gmel. *Nati Korawaka*, Cing.

Common about the south of the island; I have not met with it northward. It frequents beds of rushes, and lights readily on trees. Muttu brought in a white egg, which he stated he thought belonged to the species; he told me he saw a hen bird rise from some sedges, and on going to the place he found a rough nest of reeds and flags raised above the water, in which was the egg. Its axis is 1 inch 3 lines, and diam. 13 lines. In shape it resembles a Heron's egg.

244. ARDETTA FLAVICOLLIS, Lath. *Carawal-koka*, Cing.

Not uncommon in the marshes about Matura; I also shot three specimens on Colombo lake in March. It frequents reeds, and perches readily. It is a fearless bird, permits a near approach and remains motionless, trusting to its sombre colour to escape detection.

245. ARDETTA SINENSIS, Gmel.

This is the smallest of our species, and is abundant on the banks of all the southern rivers; it becomes rare towards the north, where it is replaced by

246. BUTORIDES JAVANICA, Horsf.,

which is very abundant. I have seen from ten to twenty specimens in the Fort-ditch at Jaffna, in one day. This species, by the way, frequents salt water more than any other, though *A. leucoptera* may often be seen fishing on the mud-banks left by the retreating tide near shore.

Dr. Kelaart includes *A. thalassina*, Swains., in his list, on the authority of some one who forwarded him a specimen many years ago from the Colombo Medical Museum, he being then in England. I am sure he is mistaken in either the identification or locality, the latter most probably, since no dependence can be placed on a museum whose labels have been shifted so often, and on which so little care has been bestowed.

247. *PLATALEA LEUCORODIA*, Linn. *Chapy-chundan*, Mal.; lit. Spoon-mouth, *Lapellaar*, Dutch.

The Spoonbill is common enough in certain localities, Mullettoe, Hambantotte, Tangalle, and Chilaw being the principal. It begins to breed in March in the north, and in the south eggs are hard set in May; some young birds were also about. Its eggs are—axis 2 in. 6 lines, diam. 1 in. 9 lines, rather oval, chalky-white, with irregular blotches of the colour of dried blood about everywhere.

248. *NYCTICORAX GRISEUS*, Linn. *Ra-kana-koka*, Cing. Common on the Tangalle lake and such localities.

249. *TIGRISOMA MELANOPHA*, Raffles. I was fortunate enough to procure two or three specimens of this curious bird about Colombo in the month of November 1852. The natives were quite ignorant of it, and while I had one alive in my house came in great numbers to see it. It certainly was a queer-looking creature; its eyes were oblong, pupil surrounded by a light yellow iris darkening into a greenish yellow on the outside. The cere of the bill greenish, legs and bill dark green, claws yellow. On being approached it threw itself back on its tarsi, at first uttering a loud hiss which deepened into a harsh cracking bark; the whole body, head, thighs, wings and neck were inflated with wind and swelled to a great size; its crest was erected and its ruff expanded; in this attitude it waited till the object of its dislike drew near enough to be struck with its sharp pointed bill, which inflicted a severe puncture.

250. *MYCTERIA AUSTRALIS*, Lath. *Peria-koku*, Mal.; lit. Large Heron. *Al-koka*, Cing.; lit. Man-Heron, from its size.

I have only seen a few of these huge waders in the Jaffna estuary at Elephant Pass; they were always in pairs, wading about in the shallow water, but always far out of gun-shot.

251. *LEPTOPTILUS JAVANICA*, Lath. The pouchless Adjutant is occasionally found on the tanks in the Wannay; and about the marshes near Tangalle. I believe it is migratory, as are most of our larger Storks, appearing with the rains.

252. *CICONIA LEUCOCEPHALA*, Gmel. *Padre-koku*, Cing.; lit. Parson Bird, from its white throat and black plumage ap-

pearing at a distance like a clergyman in his black garments and white neckcloth. *Māāna-koku*, Mal.

Common throughout the island on all the swampy lands. It breeds in trees, in companies, laying several pure white chalky eggs, the surface of which is curiously granulated. Axis 2 inches 9 lines, diam. 1 inch 10 lines.

253. *ANASTOMUS OSCITANS*, Bodd. *Gombellu-koka*, Cing.; lit. Snail-eater and Snail-koka;—*Bellu*, *Gombellu* and *Godabellu* being the Cingalese for snails of all kinds.

Common on all marshes. At Matura I saw them in flocks of several hundreds; they were breeding in lofty trees, but I could not obtain their eggs, though I offered a reward for them; the natives said they defended their nests with such pertinacity that they feared to mount to them.

254. *TANTALUS LEUCOCEPHALUS*, Gmel. *Datudua*, Cing.; lit. Sickle-bill. *Changa vella nary*, Mal. (*Nary* is the general Tamul name for all storks.) *Brand-gaus*, Dutch; lit. Brand or Fire Goose, from the red feather in the tail.

Found in company with the three preceding species: it is not uncommon.

255. *THRESKIORNIS MELANOCEPHALA*, Lath. *Tatta-koku*, Cing.; lit. Bald-head Koku.

Common in the northern and north-western provinces; feeding and breeding together in flocks; they lay four or six eggs in a large nest of sticks. The eggs are chalky-white, sparingly blotched here and there with dry blood-coloured marks, thickest at the obtuse end. Axis 2 in. 7 lines, diam. 1 in. 9 lines.

256. *IBIS FALCINELLUS*, Linn. *Rattu-datudua*, Cing.; lit. Black Sickle-bill. *Karapu cotan*, Mal.; lit. Black Snipe. *Swartz-whelp*, Dutch; lit. Black Curlew. *Prater whelp*, Port. "Black Curlew" of English shooters.

Not uncommon about Tangalle Lake and at Pt. Pedro. It was often brought into the bazaar at the latter place for sale, and I found it delicious eating. They feed just like curlews, inserting their bills into the mud and water in search of worms.

[To be continued.]